

REMARKS

Claims 6-28 are pending in the application. Claims 7, 10-12, 14-16, 19-23, 25 and 26 are currently amended. Claim 17 was previously canceled, Claim 18 is currently cancelled. Claims 17 and 18 are reinstated as new Claims 27 and 28, respectively.

The specification has been amended so that all sequences contained in the Sequence Listing are referred to in the specification. No new matter has been added by this amendment. Reference to prior applications and referral to some sequences had been inadvertently omitted in previous filings and have now been added pursuant to 37 C.F.R. 1.57(a).

A substitute paper copy of the "Sequence Listing" has been attached. A substitute computer readable form (CRF) copy of the "Sequence Listing" has also been provided. The content of the paper and computer readable copies of the "Sequence Listing" are identical and contains no new matter as required by 37 C.F.R. §1.821(e) and §1.821(f).

The Office has provided a restriction requirement dividing 21 claims—claims 6-26—into a total of forty-six groups. Of these groups, groups 1-18 all pertain to claims 6-8, 11, 13-14, 24 and 26. These groups individually address the substitution of a proline residue at various positions on the wild-type gene; however, no one claim is so limited. Applicant respectfully traverses the manner in which this restriction requirement has been made for the reasons explained below.

With all due respect, this requirement is illegal because it contravenes the statutory mandate of 35 U.S.C. §112, paragraph six permitting Applicant to claim what has been discovered as a means. As a result of the way in which the restriction is stated, Applicant is by implication required to amend the claims and elect individual sequences. The respective species are related as the claimed means and so are not independent and distinct within the meaning of 35 U.S.C. §121. This is because the species share a common functionality and because they represent the disclosed embodiments for accomplishing that functionality. Applicant is entitled to claim as a means the various disclosed embodiments and the structural equivalents thereto. Due to the nature of

restriction and the claims, it is impossible to elect a single species of invention as defined by the Office in the forty-six groups. This is because, for example in the case of claim 6, what is recited is a means. Comparing this to Group 1, the Office would permit only the substitution of proline at position 8. The nature of this restriction contravenes what is permitted pursuant to statute by requiring a narrowing amendment of the claims to a scope that is less than what Applicant has disclosed and is entitled to claim.

The inseparability of invention among the respective groups is seen where the Office has allocated all of groups 1-18 to include claims 6-8, 11, 13-14, 24 and 26. This cannot be done where claim 6 is a generic, linking claim because it recites a means. Pursuant to MPEP §803.03(b), the presence of a generic linking claim, in the nature of claim 6, means that this claim may be elected for examination and other claims in the application must be rejoined if the linking claim is found allowable. Because these distinct groups all necessarily must encompass the same claims and because this result is not brought about by Markush practice, there is no statutory or other basis for the requirement as stated because the inventions as grouped by the Office are not independent and distinct as is required to invoke 35 U.S.C. §121.

One technical requirement is that Applicant must elect the species of one of the Groups 1-46 or be held nonresponsive. Applicant elects the species of claims 6-8, 11, 13-14, 24 and 26. These claims are allocated equally to groups 1-18. Applicant further elects the species of Group 1 or claim 6; however, this election is not meaningful because election of the group 1 claims is also an election of the group 2-18 claims due to the manner in which the Office has stated the requirement. The Office has not divided these claims into separate groups that may be separately elected. Claim 6 in the elected group is generic as to all of species 1-46, so restriction is not proper. Although Applicant is required to make this election to one of groups 1-46, the election has no meaning because Applicant is also electing groups 1-18 due to the commonality of claims comprising this group and groups 1-46 due to the generic nature of claim 6.

The requirement for restriction further contravenes Patent Office policy as enunciated in MPEP §803.04 which states that, as to individual sequences, the policy is

to permit examination of at least ten such sequences in an individual application. The MPEP says that the examination of ten such sequences is not unduly burdensome and should be permitted. Thus, to the extent that Applicant elects group 1 as identified by the Office, Applicant would also elect groups 1-10 pursuant to the policy as stated in the MPEP.

These sequences are all related as mutations to the same base sequence of the same wild-type gene under different functional rationales. Under the genus of claim 6, these rationales are each allocated to functional species (a) through (i) as set forth in claims 7, 11, and 26. Since it is a statutory requirement that the inventors must claim what *they* regard as the invention, it would be more appropriate for the office to allocate a restriction as to these species than to artificially contrive a separate invention for each substitution that is allocated to the same functional purpose. Since claim 6 is generic, this requirement if restated would have to be stated as an election of species and not as a restriction.

Applicant elects the Group 1 claims with traverse. Invention 1 alleged by Examiner that is drawn to a nucleic acid encoding a variant cellobiohydrolase that has been mutated by substituting proline at position 8 is provisionally elected by Applicant with traverse. Claim 25 has been amended to depend from Claim 6 and should be included in Group I. Claims 9, 10, 12, 15, 16, 19-23 are provisionally withdrawn pursuant to 37. C.F.R. §1.143. However, Applicant respectfully disagrees with the restriction requirement imposed by Examiner and requests reconsideration of the restriction requirement pursuant to 37. C.F.R. §1.143.

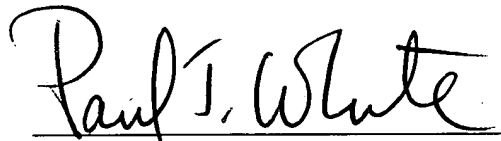
Claims 15, 16, 27 and 28 are directed to an exoglucanase bearing the sequence changes mediated by the primers as defined by SEQ ID Nos. 71, 74 or 77 and combination thereof. Applicant believes that such a small number of nucleotide sequences would fall within the reasonable limit stipulated in 37. C.F.R. §1.141. Withdrawal of the restriction requirement with regard to Claims 15, 16 27 and 28 is respectfully sought.

Finally, Claim 26 is directed to multiple nucleic acid sequences. However, because the total number of the sequences are not unreasonable within the meaning of 37. C.F.R. §1.141, Applicant respectfully requests a withdrawal of the restriction requirement with regard to Claim 26.

Conclusion

For the foregoing reasons, Applicant's attorney respectfully solicits a withdrawal of the restriction requirement and a Notice of Allowance in this application. The Commissioner is authorized to charge any additionally required fees to deposit account 14-0460. Should the Examiner have any questions, comments, or suggestions that would expedite the prosecution of the present case to allowance, Applicant's undersigned representative earnestly requests a telephone call at (303) 384-7575.

Respectfully Submitted,

A handwritten signature in black ink, reading "Paul J. White". The signature is written in a cursive, flowing style with a horizontal line underneath the name.

Paul J. White, Reg. No. 30,436
Senior Patent Counsel

Date: June 22, 2006.

National Renewable Energy Laboratory
1617 Cole Boulevard
Golden, CO. 80401
(303) 384-7575